



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,855	07/31/2003	Peter G. Odell	115801	9083

27074 7590 03/29/2005
OLIFF & BERRIDGE, PLC.
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

KEEHAN, CHRISTOPHER M

ART UNIT PAPER NUMBER

1712

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,855

Applicant(s)

ODELL ET AL.

Examiner

Christopher M. Keehan

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1712

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Examiner's Comments

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

In the previous office action, claims 1-9 and 11-25 were pending, and the examiner noted in the office action summary that claims 1-19 and 21-25 were rejected, and claim 20 was objected to. However, claims 19 and 25 were not addressed in the office action. Applicant has included the subject matter of claim 19 in amended independent claim 9, in addition to the subject matter of objected to claim 20. However, upon further review, it appears that further art rejections can be made. Therefore, the claims have been treated as set forth below. The examiner regrets any inconvenience this might have caused applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 11-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (6,183,929 B1) in view of Reitz et al. (2003/0057601). The examiner is relying on the priority date of the provisional application (60/285323, filed on April 19, 2001) for Reitz et al. Regarding claims 9, 11-19 and 21-25, Chow et al. disclose a fusing member for an electrostatic imaging system comprising a substrate (col.15, lines 28-44), thereon a surface layer comprised of polysiloxane-polyimide or polysiloxane-polyamide copolymer (col.13, line 66-col.14, line 2), additives (col.14, lines 39-55) and the substrate, configuration (col.9, line 60-col.10, line 30), and intermediate layers as claimed (col.10, line 66-col.11, line 19). Chow et al. do not appear to specifically disclose etherimide and siloxane block copolymers. Reitz et al. disclose a polyetherimide-b-polysiloxane block copolymer comprising etherimide blocks (section 0028-0029), etherimide blocks that satisfy the claimed formula (sections 0024-0029) and siloxane blocks, a halogenated polyetherimide-b-polysiloxane block copolymer as claimed (the brominated structures at section 0024), siloxane blocks that satisfy the claimed formula (sections 0044-0045) wherein the copolymer contains more than 50% by weight of the polysiloxane blocks (section 0044-0045), line 2), the instantly claimed amount of fluorine (claim 15), at least a substrate and thereon a surface layer of the composition of Reitz et al. (section 0083), an aromatic bis(ether anhydride) and organic diamine as claimed (sections 0032-0037) and substrates as claimed (sections 0083-0085). It is clear from the formulae disclosed by Reitz et al. that b can be from about 1 to about 200, which can result in a copolymer that contains more than 50% by weight of the polysiloxane blocks, and an amount of fluorine as claimed. Reitz et al. also disclose

Art Unit: 1712

using the claimed polyetherimide-polysiloxane block copolymer to enhance impact strength at high temperature embossing applications (sections 0005 and 0047).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the copolymer of Reitz et al. in the fuser member of Chow et al. because Reitz et al. teach that the polyetherimide-polysiloxane copolymer blocks are used in high temperature embossing applications to increase impact strength, resulting in a higher quality product.

Claims 9, 11-19, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (6,183,929 B1) in view of Puyenbroek (6,072,010). Regarding claims 9, 11-19, and 21-25, Chow et al. disclose a fusing member for an electrostatic imaging system comprising a substrate (col.15, lines 28-44), thereon a surface layer comprised of polysiloxane-polyimide or polysiloxane-polyamide copolymer (col.13, line 66-col.14, line 2), additives (col.14, lines 39-55) and the substrate, configuration (col.9, line 60-col.10, line 30), and intermediate layers as claimed (col.10, line 66-col.11, line 19). Chow et al. do not appear to specifically disclose etherimide and siloxane block copolymers. Puyenbroek discloses a polyetherimide-b-polysiloxane block copolymer comprising etherimide blocks and siloxane blocks, wherein the copolymer contains more than 50% by weight of the polysiloxane blocks (col.6, line 26-col.7, line 2), halogenated polyetherimide-b-polysiloxane block copolymer as claimed (as set forth above and the brominated structures at col.2, lines 40-54), etherimide blocks that satisfy the claimed formula (col.1, line 57-col.3, line 33), siloxane blocks that

Art Unit: 1712

satisfy the claimed formula (col.6, line 50-col.7, line 20), an aromatic bis(ether anhydride) and organic diamine as claimed (col.4, line 15-col.5, line 33), and additives selected from the group as claimed (col.9, lines10-14). It is clear from the formulae disclosed by Puyenbroek that b can be from about 1 to about 40, which can result in a copolymer that contains more than 50% by weight of the polysiloxane blocks.

Puyenbroek also discloses polysiloxane-polyetherimide copolymers that exhibit high heat distortion temperature and improved impact strength (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the copolymers of Puyenbroek in the device of Chow et al. because Puyenbroek discloses that the copolymers exhibit high heat distortion temperature and improved impact strength, which are particularly useful in fuser members, resulting in a higher quality product.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (6,183,929 B1) in view of Puyenbroek (6,072,010), further in view of Carlini et al. (6,439,711 B1). The Chow et al. combination, as applied above, is as set forth and incorporated herein. The Chow et al. combination does not appear to specifically disclose a ballistic aerosol marking printing system. The Chow et al. combination (Puyenbroek at col.9, line 66-col.10, line2) does disclose that the fuser member can be used in a wide variety of machines. Carlini et al. disclose a typical ballistic aerosol marking printing system and a transfuse member used therein (col.12, lines 39-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 1712

invention was made to have used the fuser member and ballistic aerosol marking printing system of Carlini et al. with the fuser member coated with the copolymer of the Chow et al. combination because Carlini et al. teach that transfuse members are typically found in ballistic aerosol marking printing systems, resulting in a more versatile product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (571) 272-1087. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/630,855
Art Unit: 1712

Page 7

Christopher Keehan *Chk*

March 22, 2005

DAVID J. BUTTNER
PRIMARY EXAMINER

David Buttner